# Kazi Amit Hasan

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# Education

### Queen's University

Doctor of Philosophy (PhD) in Computing • Supervisors: Dr. Yuan Tian and Dr. Steven Ding

# Queen's University

Master's of Science (research-based) in Computing

- Supervisors: Dr. Yuan Tian and Dr. Steven Ding
- Promoted to doctoral program for excellent research contribution

# Rajshahi University of Engineering & Technology (RUET)

Bachelor of Science in Computer Science & Engineering (CSE)

# **Undergraduation** Thesis

Title: Prediction of Clinical Risk Factors of Diabetes Using Multiple Machine Learning Techniques Resolving Class Imbalance Supervisor: Barshon Sen and Dr. Md. Al Mehedi Hasan

# **Relevant Coursework**

• Advanced topics in DevOps and release engineering	• Evolutionary Optimization and Learning	<ul> <li>Algorithms Analysis</li> <li>Database Management</li> <li>Artificial Intelligence</li> <li>Cryptography</li> </ul>	<ul> <li>Data Mining</li> <li>Neural Network and Fuzzy system</li> </ul>
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# Experience

Queen's University

Graduate Teaching Assistant

• CISC 372/CISC/CMPE 351: Advanced Data Analytics

# Advanced Chemical Industries (ACI Limited)

Machine Learning Engineer

- [Analytics] Developed a Social Media Analytics tool that can measure different perspectives of the audience towards a post which can improve a brand quality.
- [Analytics] Developed a customer segmentation system based on recency, frequency and monitory value features to help the business to focus on different segments of customers.
- [Recommendation System] Developed a recommendation system for ACI retail business to push customers from one segment to another segment based on their purchased history.
- [Analytics] Created a baseline to identify of emerging doctors by analyzing and creating features of their FourP data to assist the field force to take the right steps based on the analytics.
- [Analytics with AI] Developed a dashboard by analyzing the behavior patterns of different customers based on their credit history by using ML.
- [Analytics with AI] Developed a dashboard that provides deep insights about product performance based on different parameters. Enriched the project by using ML methods to provide forecast, predictability.
- [Analytics & AI] Developed a sales tracking report which shows various insights from data. Business leaders can observe daily, weekly, monthly, yearly trend of sales. Also, they can monitor the sales against the target. We implemented the trend analysis using fb prophet and the dashboard was created using PowerBI.
- Assisting Field Force to Take Right Steps from AI and BI Based Analysis.
- Assisting Businesses to Take Right Decision through Insights From Different Businesses Data
- Maintaining and generating insights using Power BI

# Kaggle

Kaggle Competition Expert (x4)

- Competition Expert: Ranked 1190th out of 149,258 experts.
- Notebook Expert: Ranked 262th out of 138,005 experts.
- Datasets Expert: Ranked 124th out of 24,475 experts.
- Discussion Expert: Ranked 283th out of 159,970 experts.

May 2023 - Present Kingston, ON, Canada

Sept. 2022 – May 2023 Kingston, ON, Canada

Jan. 2016 – Jan. 2021 Rajshahi, Bangladesh

Jan. 2023 - March, 2023

Kingston, Canada

Feb. 2021 - July 2022

Dhaka, Bangladesh

May 2020 - Present Dhaka, Bangladesh

# Selected Publications

- Kazi Amit Hasan, Marcos Macedo, Yuan Tian, Bram Adams, Ding Steven, H., H. "Understanding the Time to First Response In GitHub Pull Requests." In 20th International Conferece on Mining Software Repositories (MSR 2023) .
- Ahamed, Md Atik, Kazi Amit Hasan, Khan Fashee Monowar, Nowfel Mashnoor, and Md Ali Hossain. "ECG heartbeat classification using ensemble of efficient machine learning approaches on imbalanced datasets." In 2020 2nd International Conference on Advanced Information and Communication Technology (ICAICT), pp. 140-145. IEEE, 2020.
- Hasan, Kazi Amit, and Md Al Mehedi Hasan. "Prediction of clinical risk factors of diabetes using multiple machine learning techniques resolving class imbalance." In 2020 23rd International Conference on Computer and Information Technology (ICCIT), pp. 1-6. IEEE, 2020.

# **Open Source Contribution**

#### Data Inspector

• Data Inspector brings a total of 15 essential exploratory data analysis, data cleaning automations to make a dataset understandable. This is a perfect tool to get started with you data. (Link)

#### PR-Stats

• PR-stats is an open-source python library that brings different functions to bring stats about pull requests. (Link)

#### PR-Accelerator

• PR-Accelerator is a set of tools that reports analytics and information regarding pull requests (PRs) and points out the delays in first response. This tool was presented in our paper titled Understanding the Time to First Response In GitHub Pull Requests published at the MSR 2023 conference. (Link)

# Machine Learning Competition Ranks

- First Runner Up in (Top 0.5%) in Robi Datathon 2.0.
- Ranked 28th out of 2132 participants (Top 1.3%) in Of Genomes And Genetics: HackerEarth Machine Learning Challenge.
- Ranked 20th out of 2796 participants (Top 0.7%) in Fast, Furious and Insured: HackerEarth Machine Learning Challenge.
- Ranked 35th out of 2124 participants (Top 1.6%) in A Fine Windy Day: HackerEarth Machine Learning challenge.
- Ranked 125th out of 3958 participants (Top 3.1%) in HackerEarth Machine Learning Challenge: Exhibit A(rt).
- Ranked 145th out of 5000++ teams (Top 2%) in HackerEarth Machine Learning challenge: Adopt a buddy in HackerEarth.
- Ranked 88th out of 3,314 teams (Top 3%) and achieved first ever Solo Silver Medalin SIIM-ISIC Melanoma Classification in Kaggle. (Kaggle Competition)
- Ranked 91th out of 541 teams (Top 17%) and achieved first ever Solo Bronze Medal in Google Landmark Retrieval 2020. (Kaggle Competition)
- Secured 32th position (Top 6%) out of 487 participants in HackerEarth's Machine Learning Challenge: Slashing prices for the biggest sale day.
- Secured 86th position (Top 1.4 %) out of 5800++ participants in HackerEarth Deep Learning challenge: Identify the dance form.
- Passed the Linkedin assessment on "Machine Learning".

# Selected Projects

### Risk Factors Analysis of Musculoskeletal Pain in Clinical Practice

• Analyzed the risk factors of Musculoskeletal Pain and tried to find out some interesting patterns among the symptoms. Association Rule mining and Statistical Logistic Regression were used to get the insights of the tabular data and to find out the risks factors. (Link)

### Analysis and Prediction of the Impacts of COVID-19 on Bangladesh

• Analyzed the impacts of COVID-19 on Bangladesh by using country wise COVID dataset. The prediction part is implemented by analyzing the time series data COVID confirmed, death, recovered cases. This project includes different data visualizations and using of fbprophet algorithm. (Link)

#### Sentiments Analysis of Twitter Data

• A project which fetches real-time data from Twitter using credentials and analyzes the sentiments and generates a visual that represents the sentiments of a specific word/tweets (text data). Users can submit a word and sample numbers, the UI will show the sentiment visuals using textblob. (Link)

### Machine Learning Projects

- This repository contains all my implemented Machine Learning projects. All my learning from different Coursera ML courses and internet are reflected here. This repository contains different projects on various types of tabular, image datasets. (Link)
- Solved different types of classification, regression, time series problems.

#### October 2020

November 2020

January 2021

#### October 2020

# August 2021 aset

## January 2023

May 2023

# Technical SKills

Languages: Python, C++, HTML/CSS, SQL

Applications: Jupyter Notebook, PowerBI, Overleaf, GitHub, MATLAB, CodeBlocks, Google Docs, Sheets, Drive, MS Excel **Operating System:** macOS, Linux, Windows, , GitHub

# Awards

- Awarded Rajshahi board Scholarship for excellency in Higher Secondary Certificate (HSC) examination in TalentPool Grade-Full Tuition Fee waiver in Bachelor with around 550\$ Stipend for the period of 2016 to 2020.
- Secured the position of 13th in Rajshahi Board in Higher Secondary Certificate (HSC), examination, 2015
- Rajshahi board Scholarship excellency in Junior School Certificate (JSC) examination in General Grade-Full Tuition Fee waiver in Bachelor with around 71\$ Stipend for the period of 2012 to 2013.
- Honored prize at "BUET EEE Day Inter-University Project Show 2017" in the Junior category.

# Administrative Experience

- **RUET Career Forum, RUET (RCF)** \* Organized the 5th RCF Career Fair, 2019 as Convener.
  - \* General Secretary (August 2019 August 2021)
  - \* Former Student Coordinator (December 2018 August 2019)
- Class Representative (CR), CSE'15, RUET) \* Managed 120 students and respective teachers directly.

  - \* Managed several departmental programs directly.

#### IEEE

- \* Active Member, IEEE Bangladesh Section (August 2019 Ongoing)
- \* Active Member, IEEE Computer Society (August 2019 Ongoing)
- \* Active Member, IEEE Signal Processing Society (August 2019 Ongoing)
- **RUET** Debating Club (RUET DC)
  - \* Former Executive Member (February 2017 February 2018)

# **Contest and Participations**

- \* Axiata Digital Labs AI Hackathon, 2021: ranked 46th out of 90 teams
- \* Dhaka AI. 2020
- \* Technovation, 2018
- \* IUT 9th ICT Fest, 2017
- \* Mecceleration, 2017
- \* SS12 Project Competition and Maker Fair, 2017
- 40 hours training on Advanced Mobile Game Development, 2017
- 40 hours training on Mobile Game Graphics Design, 2017
- \* Power and Energy Hackathon 2017

# Languages

Bangla, English

# References

Available upon request